

C-A DEPARTMENT MAINTENANCE, REPAIR AND MODIFICATION PROGRAM
JOBS SCHEDULING REQUEST

GROUP: Accelerator Controls – B. Venegas (ext. 3917, BP 7241), Brian Oerter (ext. 2799)

<u>JOB#</u>	<u>AREA WHERE WORK IS TO BE DONE</u>	<u>POSSIBLE DISRUPTIONS TO OTHERS</u>	<u>TIME PERIOD</u>	<u>JOB DESCRIPTION, RESPONSIBLE PERSON & GROUP DOING THE WORK</u>	<u>ADD’L. SUPPORT AND COMMENTS</u>	<u>HP SURVEY AND DETAILS</u>
C 1	RHIC Alcoves		1/28 – 1/30	Check temp sensor in alcoves 5,7,9, and 11	None	None
C 2	RHIC Alcoves/ service Bldg.		1/31 – 2/8	Check and clean all air filters in VME chassis	None	None
C 3	RHIC Alcoves/ service Bldg.	Will affect any power supply testing	2/11 – 2/22	Move modicon PLC’s from alcoves to service bldg.	None	None
C 4	RHIC Alcoves/ service Bldg.	Will affect any power supply testing	2/4 – 2/22	ECN of V115 Waveform Generator boards	None	None
C 5	RHIC Service Bldg.	Will affect any power supply testing	8/12 – 8/23	Separate blue and yellow MADC read backs and install another VME chassis	Need all the hardware before starting	None
C 6	Alcoves 1009C and 1011A	Will affect any power supply testing	2/25 – 2/26	Install new Motorola CPU boards in all the power supply 6U VME chassis (PS1, PS2 and PS3)	None	None
C 7	RHIC Alcoves/ Service Bldg.	Will affect any power supply testing	3/29 – 4/5	Replace fuse holder in all Elma chassis. 13 chassis need work.	None	None
C 8	RHIC Alcoves		3/26 – 4/5	Change bipolar low res cards to unipolar for snakes and rotators as per Don Bruno. Total of 24 modules.	None	None

C-A DEPARTMENT MAINTENANCE, REPAIR AND MODIFICATION PROGRAM
JOBS SCHEDULING REQUEST

GROUP: Access Controls – D. Meany (ext. 5329, Pager 0361), N. Williams (ext. 5346, Pager 0554)

<u>JOB#</u>	<u>AREA WHERE WORK IS TO BE DONE</u>	<u>POSSIBLE DISRUPTIONS TO OTHERS</u>	<u>TIME PERIOD</u>	<u>JOB DESCRIPTION, RESPONSIBLE PERSON & GROUP DOING THE WORK</u>	<u>ADD’L. SUPPORT AND COMMENTS</u>	<u>HP SURVEY AND DETAILS</u>
C 1	RHIC	Yes	10/22 – 11/01	Replace ODH Sensors in RHIC, Refrigerator, compressor.		
C 2	RHIC	Yes	10/28 – 11/29	Recertify RHIC Security		
C 3	RHIC	No	1 Day	Repair 12GE1 Gate		
C 4	RHIC	No	10/21 – 11/15	Install Key Trees at 2, 6, 8, 10, o’clock gates	Electricians	
C 5	RHIC	Yes	10/24 – 11/15	Replace Batteries in ODH in out buildings		
C 6	RHIC	No	10/18 – 11/22	Install ODH System in 1005E	Electricians	

C-A DEPARTMENT MAINTENANCE, REPAIR AND MODIFICATION PROGRAM
JOBS SCHEDULING REQUEST

GROUP: Beam Components & Instrumentation – D. Lehn (ext. 4542, Pager 4276), Tony Curcio
(ext. 4659, Pager 4270)

<u>JOB#</u>	<u>AREA WHERE WORK IS TO BE DONE</u>	<u>POSSIBLE DISRUPTIONS TO OTHERS</u>	<u>TIME PERIOD</u>	<u>JOB DESCRIPTION, RESPONSIBLE PERSON & GROUP DOING THE WORK</u>	<u>ADD'L. SUPPORT AND COMMENTS</u>	<u>HP SURVEY AND DETAILS</u>
RS 1 C	AGS Ring 928		a) 160 hrs. b) 120 hrs.	Ring Grounds – a) Install new monitoring system (VME) b) Inspect and replace RC's Shorts, DCCT's and Hybrids as necessary	HP-Survey Controls Group	
RS 2	AGS Ring		32 hrs.	C10 SEC – Inspect cables – replace as necessary RS - Install/Move Ion Chamber ??	HP-Survey Cable Crew	
RS 3	AGS Ring		4 hrs.	Video – Replace BNC feedthroughs at 8/18 locations as necessary	HP-Survey Waste Group	
RS 4	AGS Ring		480 hrs.	F10 Septum – Build/Test/Install new septum	HP-Survey, Water Group, Riggers, P.S. Group	
C 5	AGS Ring		40 hrs.	PUE Pre Amps – F20 & G7 a) – Install new Pre-Amps and Enclosures b) – Install new control cables	HP-Survey Cable Crew Waste Group	
RS 6	AGS Ring		4 hrs.	H10 Septum – Install new video light assembly	HP-Survey Waste Group	
RS 7	AGS Ring		4 hrs.	UF1 – a) Install inline valves on air lines b) Upgrade/Install neutral density filter assembly c) Remove failed fiber optic cable	HP-Survey Waste Group	
RS 8	AGS Ring 923 "PIT"		40 hrs.	Cleanup/Removal of legacy waste – a) North Conjunction b) C14 Alcove c) 923 "PIT"	HP-Survey Waste Group	
RS 9	AGS Ring B18 House A10 House		16 hrs.	IPM – a) Replace/Repair servo valves for C5 & E15 IPM's as necessary b) Modify vacuum ports as necessary c) Investigate electronics upgrades	HP-Survey Vacuum Group	
RS 10	AGS Ring J18 House		4 hrs.	J10 Beam Dump – resolve TC issues	HP-Survey	
RS 11	AGS Ring HITL 2		40 hrs.	C20 Polarimeter – Support Spin group with changes to control system	HP-Survey SPIN Group	
C 12	AGS Ring HITL 2		480 hrs.	C15 Polarimeter – a) Support installation of new polarimeter including cabling for detectors & motion control b) Installation of above device including fabrication of parts as necessary	HP-Survey, Vacuum Group, Spin Group, Survey Group, Cable Crew, Electricians, Grounds Crew	
RS 13	AGS Ring		2 hrs.	CF100 – Perform maintenance on motor drive	HP-Survey	
RS 14	AGS Ring		16 hrs.	CF011 – a) Perform maintenance on motor drive b) Investigate offset in flag position	HP-Survey Kevin Brown	

C	15	AGS Ring	40 hrs.	RLRM – Investigate Argon leaks in 4 of 6 chains and repair as necessary	HP-Survey Water Group
RS	16	AGS	Deferred	H20 Septum – Build and test spare septum	
C	17	911A	8 hrs.	Video – Replace all bad monitors in MCR	
C	18	911B	160 hrs.	Video – a) Upgrade of CATV system to single trunk b) Troubleshoot/Repair Horizon Video switch	
RS	19	AGS	40 hrs.	Transverse Dampers – Retube and test Dampers	Waste Group
RS	20	AGS Ring A10 House	16 hrs.	A20 Flying Wire – a) Setup dual PMT's in ring b) Setup dual controls in A10 House	HP-Survey
RS	21	AGS Ring 919B	160 hrs.	Sextupole Magnets – a) Build up spare magnets b) Swap out all "13" locations in ring	HP-Survey, Riggers, Water Group, PS Group, Survey Group, Vacuum Group
RS	22	AGS Ring	a) TBD b) 8 hrs. c) 16 hrs.	H20 Septum – a) Install new motion control system including cables for Septum and flag drive b) Remove Septum from girder for inspection and reinstall on girder when inspection completed	HP-Survey Survey Group Riggers, Cable Crew
RS	23	AGS Ring	a) TBD b) 4 hrs. c) TBD	F5 Septum – a) Install new motion control system including cables for Septum and flag drive b) Replace loss monitors c) Setup new video controls	HP-Survey Cable Crew Waste Group
RS	24	AGS Ring	a) TBD b) 4 hrs. c) TBD	F10 Septum – a) Install new motion control system including cables for Septum and flag drive b) Replace loss monitors c) Setup new video controls	HP-Survey Cable Crew Waste Group
C	25	AGS Ring	TBD	Tune Meter – a) Remove old Tune Meter b) Build new Tune Meter c) Install new Tune Meter	HP-Survey Riggers
RS	26	AGS Ring	TBD	E15 Flag – a) Install new motion control system including cables	HP-Survey Cable Crew
RS	27	AGS Ring	TBD	L20 Septum Flag – a) Install new motion control system including cables	HP-Survey Cable Crew
C	28	AGS 911B	16 hrs.	Current Transformers – Run new cable from 911B to 930UEB and terminate	Cable Crew
RS	29	AGS Ring	2 hrs.	A5 Loss Monitor – Tie into gas system	HP-Survey
C	30	AGS	640 hrs.	Siemens – Support Repairs	
C	31	AGS	Combined w/Siemens	WESTINGHOUSE – Support Maintenance/Repairs	
C	32	AGS Ring	4 hrs.	C20 – Remove Loss Monitor Array	HP-Survey
C	33	AGS Ring	4 hrs.	E15 – Support removal of Luminescence test	HP-Survey

RS	34	AGS	240 hrs.	AC Dipole – Support Installation/Modifications	
RS	35	AGS Ring	40 hrs.	UXF1 – Rebuild/Replace Current Transformer & Cable	HP-Survey Vacuum Group
C	1	957 BAF	320 hrs.	Building 957 – Complete installation of all necessary electronics including testing and commissioning	Controls Group Cable Crew
C	2	958 BAF	24 hrs.	Building 958 – Complete installation of all necessary electronics including testing and commissioning	Controls Group BAF Personnel Cable Crew
C	3	930A BAF	24 hrs.	Building 930A – Complete tie in from building 957	Cable Crew
C	4	BAF Tunnel	80 hrs.	R63 Location – Install, Test and commission all necessary instrumentation	Controls Group Cable Crew
C	5	BAF Tunnel	80 hrs.	Beam Plug – Install, Test and commission Beam Plug	Controls Group Cable Crew
C	6	BAF Tunnel	80 hrs.	R92 Location – Install, Test and commission all necessary instrumentation	Controls Group Cable Crew
C	7	BAF Tunnel	80 hrs.	R158 Location – Install, Test and commission all necessary instrumentation	Controls Group Cable Crew
C	8	BAF Tunnel	80 hrs.	R188 Location – Install, Test and commission all necessary instrumentation	Controls Group Cable Crew
RS	9	BAF Tunnel	80 hrs.	R300 Location – Install, Test & commission all necessary instrumentation	Controls Group Cable Crew
RS	10	BAF Tunnel	80 hrs.	R302 Location – Install, Test and commission all necessary instrumentation	Controls Group Cable Crew
RS	11	BAF Tunnel	24 hrs.	Target Area – Install, Test and commission all necessary instrumentation	Controls Group BAF Personnel Cable Crew
C	12	BAF Tunnel 957	24 hrs.	Instrumentation Junction Box – Install and terminate all spare cables	Electricians Cable Crew
C	13	BAF Tunnel 957	16 hrs.	Ar/CO2 Gas System – Install, test and commission gas system	
C	14	957/BAF	16 hrs.	Video – Install equipment needed to tie in BAF to C-A CATV system	
RS	1	Switchyard	16 hrs.	DF146 – Remove/Rebuild/Reinstall flag drive motor assembly	HP-Survey EAG
RS	2	Switchyard	16 hrs.	AF124 – Investigate optics/potential upgrade	HP-Survey
RS	3	Switchyard	8 hrs.	Flag Drives – Perform maintenance on all drives - investigate possible upgrades	HP-Survey

RS	4	C-Line	800 hrs.	LESB3 Separator – a) Remove Separator #1 b) Install Rebuilt LESB 2 Separator 2	HP-Survey Riggers
C	5	C-Line	800 hrs.	LESB2 Separator – a) Remove Separator #2 b) Rebuild above	HP-Survey Riggers
IP					
IP	6	A-Line	160 hrs.	NASA – Setup/Test as necessary for NASA running. a) Install Integrator protection daughter boards b) Checkout of all necessary video c) Setup of all Loss Monitors d) Setup of all necessary gains	
RS	7	C-Line	200 hrs.	E949 – a) Replace C SEC b) Replace CW475 c) Replace all target cave cables d) Setup E949 Instrumentation as necessary	HP-Survey Joel Scott
CAN	8	V-Line	200 hrs.	E949 – a) Replace VE324 b) Replace VW326 c) Replace VXF315 d) Replace all target cave cables e) Setup E962 instrumentation as necessary	HP-Survey Joel Scott EAG Mech Group.
C	1	TTB	40 hrs.	Instrumentation – Inspect and Test all BIPS (Beam Instrument Packages) prior to RHIC startup	Tandem Personnel
RS	2	TTB	24 hrs.	Multiwires – Install Integrator protection daughter boards and test	
RS	1	ATR	40 hrs.	Flag Profile Monitors – UF2, UF3, UF4, UF5, WF1, WF2 and WF3 a) Install inline valves on air lines b) Upgrade all neutral density filter assemblies	HP-Survey
C	2	ATR	8 hrs.	BLM System – Perform checkout prior to beam	HP-Survey
RS	3	ATR	16 hrs.	BLM System – Install Integrator protection daughter boards and test	
1 RS RS RS C C C RS		Booster Ring 930UEB	800 hrs.	RLRM System – a) Install new 200V bias boards b) Investigate Gas alarm contacts c) Upgrade controls d) Investigate/Repair all Argon leaks e) Upgrade Loss Monitor boots/fittings f) Replace all remaining poly-flo lines g) Tie in C5 Short Loss Monitor into gas system	HP-Survey Water Group Waste Group
	2	930UEB - Booster	40 hrs.	Instrumentation Racks – Clean up racks and cable	Electricians

C C RS CAN RS	Booster		trays	
			- Install new Instrumentation Rack	
	3 Booster Ring 930A	32 hrs.	IPM – a) Move upstream 3 ft. b) Move all associated cabling/equipment c) Setup new MCP Bias Supplies d) Replace MCP's? e) Upgrade Data Acquisition System	HP-Survey Vacuum Group Riggers Survey Group
C 4 RS	Booster Ring	16 hrs.	D3 Kicker – Remove from BOOSTER Ring	HP-Survey Vacuum Group Riggers
5	Booster	Deferred	F6 Septum – Build spare septum	
C 6	Booster Ring	32 hrs.	D4 ¼ Cell – Remove/Modify/Reinstall	HP-Survey Riggers Water Group Survey Group PS Group Vacuum Group
C 7	Booster Ring	24 hrs.	D6 ¼ Cell – Remove/Modify/Reinstall	HP-Survey Riggers Water Group Survey Group PS Group Vacuum Group
C 8	Booster Ring	24 hrs.	D6 Beam Dump – Remove from Booster Ring	HP-Survey Riggers Water Group Survey Group PS Group Vacuum Group
C 9	Booster Ring	16 hrs.	D6 Wall Current Monitor – Remove from ring	HP-Survey Riggers Water Group, Vacuum Group
C 10	Booster Ring	32 hrs.	D7 ½ Cell – Remove/Modify/Reinstall	HP-Survey Riggers, Water Group, Survey Group, PS Group, Vacuum Group
C 11	Booster Ring	40 hrs.	D3 Septum – Install New Device	HP-Survey Riggers, Water Group, Survey Group, PS Group, Vacuum Group
C 12	Booster Ring	160 hrs.	D6 Septum – a) Install new device including Foil Stripper, Collimator and Flag	HP-Survey Riggers, Water Group, Survey Group, PS Group, Vacuum Group
C 13	Booster Ring	32 hrs.	B6 Beam Dump – Install new beam dump	HP-Survey Riggers Water Group Survey Group PS Group Vacuum Group
C 14	Booster Ring	16 hrs.	B6 Wall Current Monitor – Install new device	HP-Survey Riggers Water Group Survey Group PS Group Vacuum Group
C 15	Booster Ring	80 hrs.	D6 Video – Install, Setup and Test all new equipment	Cable Crew
C	Booster Ring	32 hrs.	D6 Collimator/Foil Stripper – Install, Setup and Test all new equipment	Cable Crew

16			Test all new equipment	
C	Booster Ring	160 hrs.	D3 Septum Motion – Install, Setup and Test all new Equipment	Cable Crew
17				
C	Booster Ring	40 hrs.	Ring Grounds – Check for shorts and verify grounding throughout the BOOSTER Ring	
18				
RS	Booster Ring 914	24 hrs.	F6 and BTA Video – Setup and Test video controls (Lights, actuators, filters)	
19				
RS	Booster 914/930UEB A10 House	16 hrs.	Multiwires – Install Integrator Protection Daughter boards and Test	
20				
C	1 RHIC Ring 1004A	120 hrs.	AC Dipole – Tie up loose ends for Vertical AC Dipole - Installation of Horizontal AC Dipole System	Water Group, Riggers, Survey Group
C	2 RHIC Ring – All sectors 1002A, 1004B, 1005E, 1007W, 1008B, 1010B, 1012A, 911A	480 hrs.	BLM System – a) Add 2 loss monitors to each DX magnet b) Cabling and VME setup for above c) Recalibration of all V119 modules d) Removal of loss monitors in Sector 7 & 8 warm bore for Spin Rotator installation. e) Removal of loss monitors/bands from dummy magnets in Sectors 6, 7 & 8 f) Installation of spare cables to Q12's g) Installation of new cable to 11Q18 h) Removal of loss monitor/band from 10Q16 i) Finalize MOD 99 test fixture in shop ***** After all Devices are installed j) Reinstall loss monitors in Sector 7 & 8 warm bore k) Reinstall loss monitors and new bands on Spin Rotators in Sectors 6, 7 & 8 l) Reinstall loss monitor/band at 10Q16 m) Install 4 loss monitors for Spin Rotators in Sector 5 n) Full checkout of all Sectors	Collider Mechanical Group Cable Crew Controls Group Hp - Survey
C	3 RHIC Ring – Sectors 7 & 8	40 hrs.	Beam Scrapers – Inspect chain drive components and modify as necessary	HP – Survey
C	4 RHIC Ring Sector 7	8 hrs.	Crystal Collimator – a) Inspect motion control components b) Complete remote installation of Burliegh Controller	HP – Survey
C	5 RHIC Ring Sector 1 & 2	120 hrs.	Movable BPM – a) Inspect motion control	HP – Survey

				b) Move devices and all controls	
				c) Re-commission whole system	
C	6	RHIC Ring Sector 12	24 hrs.	Polarimeter –	HP – Survey
				a) Inspect motion control for Blue and Yellow Polarimeter	
				b) Investigate possible microswitch problem	
C		RHIC Ring	32 hrs.	Flag Profile Monitors – XF1, XF2, YF1 & YF2	HP – Survey
7		Sectors 5 & 6		a) Install in-line valves for compressed air isolation	
				b) Upgrade neutral density filter assemblies	
C		RHIC Ring	32 hrs.	Roman Pots –	HP – Survey
8		Sectors 1 & 2 1002D		a) Inspect motion control devices	
				b) Make necessary wiring corrections	
				c) Calibrate devices	
C	9	RHIC 1005E/1007W	240 hrs.	Injection Kicker – Modify and swap out of Ferrite kicker magnets	
C		RHIC Ring	160 hrs.	Hodoscopes – Cleanup/Setup/Configure and test for MCR Operations	
10		Sector 12 /1012A			
IP		RHIC Ring	240 hrs.	Electron Cloud Tests – Installation and cabling of Electron (Electron Detector) Detectors/MCP's/Pin Diodes	Vacuum Group Cable Crew Electricians
11		Sectors 2, 8, 12 1002A, 1008B, 1012A			
IP		RHIC Ring	40 hrs.	SNS Electron Detectors –	
12		Sector 1 & 2 1002A		a) Build SNS Electron Detectors	
				b) Install new detectors for SNS test	
C		RHIC Ring	80 hrs.	Luminosity Monitor –	Cable Crew
13		Sector 12, 1012A		a) Install Cabling	
				b) Prep for upcoming installation	
IP		RHIC Ring	400 hrs.	Stochastic Cooling –	Cable Crew Electricians
14		Sector 1 & 2, 1002A		a) Installation / testing and commissioning of new devices	

C-A DEPARTMENT MAINTENANCE, REPAIR AND MODIFICATION PROGRAM
JOBS SCHEDULING REQUEST

GROUP: LINAC – V. LoDestro (ext. 5005, Pager 7264), B. Brisco (ext. 5007, Pager 4225)

<u>JOB#</u>	<u>AREA WHERE WORK IS TO BE DONE</u>	<u>POSSIBLE DISRUPTIONS TO OTHERS</u>	<u>TIME PERIOD</u>	<u>JOB DESCRIPTION, RESPONSIBLE PERSON & GROUP DOING THE WORK</u>	<u>ADD'L. SUPPORT AND COMMENTS</u>	<u>HP SURVEY AND DETAILS</u>
--------------------	---	--	-------------------------------	--	---	---

C-A DEPARTMENT MAINTENANCE, REPAIR AND MODIFICATION PROGRAM
JOBS SCHEDULING REQUEST

GROUP: Main Ring P.S. Systems – M. Bannon (ext. 7704, Pager 4224), I. Marneris (ext. 7027, Pager 4255)

<u>JOB#</u>	<u>AREA WHERE WORK IS TO BE DONE</u>	<u>POSSIBLE DISRUPTIONS TO OTHERS</u>	<u>TIME PERIOD</u>	<u>JOB DESCRIPTION, RESPONSIBLE PERSON & GROUP DOING THE WORK</u>	<u>ADD'L. SUPPORT AND COMMENTS</u>	<u>HP SURVEY AND DETAILS</u>
--------------------	---	--	-------------------------------	--	---	---

AGS

1				F5 Power Supply going over for loose connections		
2				F5 Magnet – Water flow valve replacement or rebuild		
3				Horz. Sextupole Magnets replaced and string modified for the F7 Link Brd. In F10 House		
4				Test new horz. Power supply		
5				Sextupole magnet interlock rack built and installed		
6				New interlock cables pulled into the AGS Ring to each of the 28 sextupole magnets in the ring		
7				B13, J13, F13 Aux sextupole PS control remote and new Ref. Controls		
8				Possible D11 Main Dipole remove from girder (Vac. Groups Call)		

BOOSTER

1				BMM Hipot		
2				D6 MM ¼ Cell disconnect all wiring and label wires clearly so they can be reinstalled properly with no errors.		
3				D4 MM ½ Cell disconnect all wiring and label wires clearly so they can be reinstalled properly with no errors		
4				930A Console area temporarily remove RK's 4940, 4941, 4942		
5				930A Console area install new resistance chassis rack for D3 and D6 Septum Magnets		
6				Label and remove all wiring for the horz. and vert. Tune PS in Bldg. 930A remove output filter on the top of PS so PS can pass under cable tray when being removed from 930 console area.		

IP 7 Pre Test D3 and D6 PS's

8	Hook up and test new BAF D3 and D6 Septum PS on real load after all hookup is completed
9	Reinstall 930A Console area
10	Prepare active filter PS and cables to inductor in Sta. 1 open bandwidth of PS to that of Siemens active filter PS
11	BMMPS Phase shift and Rect. Transformers Nitrogen system alarm monitor to PLC
12	LTB Water Flow concerns
13	BMMPS NWL Transformer check oil levels
14	Swap 2 BMMPS transformers with the repaired one's
15	Send the 2 that were removed to GE for estimate on repairs and upgrades
IP 16	Test 2 new Quad Tune PS in 930 UEB. (horz. & vert.) (Inverpowers)
IP 17	Test 2 new Sextupole PS in 930 UEB (Inverpowers)
IP 18	Test 7 new bump power supplies in 930 UEB (Danfysik)
19	Spill servo and act filter humb bucket installation
20	Test 2 new BAF Corrector PS's
21	DH1 Magnet Interlock harness check for short to Gnd. Or Bus. (Megger)
22	BMMPS inspection – PM
23	930A Filter inductor area cleanup and wipe down
24	QV1 Cable Junction Block in Booster Ring must be replaced

BOOSTER / AGS UPS'S

Preventative maintenance on AGS and Booster UPS'S at the following locations;

1	911 MCR – Lieberts
2	911 UPS1 – Mitsubishi
3	EAO-A – Lieberts
4	E10 House – Lieberts
5	928 Siemens – Lieberts
6	928 Cycloconverter – Lieberts
7	929 – RF 1

8	929 – RF 2
9	H10 House – Lieberts
10	A10 House – Lieberts
11	930A Booster – Lieberts
12	930 Linac – Lieberts
13	914 – Lieberts
14	911 – Cyberex – Security System
15	919 – G-2
16	911-B UPS2 – Mitsubishi
17	911W – Speed Room

Do Battery Impedance Checks and Clean All Units

RHIC

Preventative maintenance on RHIC UPS's located at the following locations;

C	1	1012A – 1012ACR UPS-Mitsubishi – 10 KVA	
C	2	1012A – RHIC Cryo PLC12A-Mitsubishi – 6KVA – needs to be moved to control room and bypass switch installed	Contract Electricians
C	3	1002B – RHIC Cryo PLC2B-Mitsubishi – 6 KVA	
C	4	Maintenance Replace 1004B – 1004BCR UPS – Mitsubishi – 10KVA – need bypass switch wired in. 1004B RHIC Cryo PLC4B UPS controlled Power	Contract Electricians
C	5	Replace 1005H – RHIC Cryo PLC5H – Controlled Power	Contract Electricians
C	6	Replace 1005R – RHIC Cryo PLC5R – Controlled Power	Contract Electricians
C	7	1005S – 1005S Cryo VAX-B-Mitsubishi – 6KVA	
C	8	1005S – 1005S Cryo/Network – Mitsubishi – 20 KVA	
C	9	1006B – RHIC Cryo PLC6B – Mitsubishi 6KVA	
C	10	Replace 1008B – RHIC Cryo PLC8B – Controlled Power	Contract Electricians
C	11	1010A – 1010ACR UPS-Mitsubishi – 10 KVA	
C	12	1010A – RHIC Cryo PLC10A-Mitsubishi – 6KVA – Maintenance	Tech

12			
C	1000P – RHIC X-Y PS Control – Mitsubishi – 15 KVA – Maintenance	Tech	
13			
IP			
14	Possibly changing all controlled power UPS's to Mitsubishi's also finishing those UPS's that do not have maint. Bypass switches. Installing new 6KVA Mitsubishi UPS's Installing new 6KVA UPS's in RHIC Alcoves	Electrician	
C	1004B RHIC Cryo PLC4B – Controlled power – replace w/Mitsubishi 6KVA	Contract Elect.	
15			
C	1005H – RHIC Cryo PLC5H – Controlled power – replace w/Mitsubishi 6KVA	Contract Elect.	
16			
C	1005R – RHIC Cryo PLC5R – Controlled power – replace w/Mitsubishi 6KVA	Contract Elect.	
17			
C	1008B – RHIC Cryo PLC8B – Controlled power – replace w/Mitsubishi 6KVA	Contract Elect.	
18			
C	1012A – RHIC Cryo PLC12A – Mitsubishi – 6KVA – needs to be moved to Control Room and bypass switch installed	Electrician	
19			
C	1004B – 1004BCR UPS-Mitsubishi – 10KVA – need bypass switch wired in	Electrician	
20			
C	1002B – RHIC Controls UPS 1002BCRUPS 6KVA Mitsubishi – New	Contract Elect.	
21			
C	1006B – RHIC Controls UPS 1006BCRUPS 6KVA Mitsubishi – New	Contract Elect.	
22			
C	1008B – RHIC Controls UPS 1008BCRUPS 6KVA Mitsubishi – New	Contract Elect.	
23			
C 24	1004A – RHIC Controls UPS 1004CRUPS 6KVA Mitsubishi – New	Contract Elect.	
C 25	1002A – RHIC Controls UPS 1002ACR 6KVA Mitsubishi – New	Contract Elect.	
C	1005E – RHIC Controls UPS 1005ECRUPS 6KVA Mitsubishi – New	Contract Elect.	
26			
C	1007W – RHIC Controls UPS 1007WCRUPS 6KVA Mitsubishi – New	Contract Elect.	
27			
C	1001B – RHIC Controls UPS 1001BALCUPS 6KVA Mitsubishi – New	Contract Elect.	
28			

C 29	1003B – RHIC Controls UPS 1003BALCUPS 6KVA Mitsubishi – New	Contract Elect.
C 30	1005B – RHIC Controls UPS 1005BALCUPS 6KVA Mitsubishi – New	Contract Elect.
C 31	1007B – RHIC Controls UPS 1007BALCUPS 6KVA Mitsubishi – New	Contract Elect.
C 32	1009B – RHIC Controls UPS 1009BALCUPS 6KVA Mitsubishi – New	Contract Elect.
C 33	1011B – RHIC Controls UPS 1011BALCUPS 6KVA Mitsubishi – New	Contract Elect.
C 34	Pretest 8 new Mitsubishi 6KVA units that are in the Westinghouse 911W on charge. Make test sheet up for all new units.	
IP 35	Prototype Dynapower Power Supply – Upgrade to Enerpro FRG BRD	

SIEMENS

IP 1	MG Set Re-Assembly
IP 2	RTD's and temp monitoring additions (PLC based)
IP 3	Generator gap monitoring (Laser Monitoring Installation)
IP 4	New vibration equipment installation
IP 5	New Pressure Sensors installed PED 1,2,3
IP 6	New National Instrument Analog Signal Monitoring installed
IP 7	Exciter Power Supply modification for Volt and Current Monitoring (CT and PT for isolation)
IP 8	New seals for PED #3
C 9	Motor brush rigging doors and TRD repaired and installed
IP 10	Generator Naughyde Replaced
11	Rect. MD#3 Firing Bucket PS Chassis fan replaced
12	Siemens MG Set PM's items

WESTINGHOUSE

IP1	West MG Set DWGS ongoing
2	New SLIP Rings for the West MG Set Motor
3	New brush holders for the Westinghouse motor – Install
4	New Exciter Ring Air Baffle installed
5	New Oil Heat Exchanger installed
6	Install Temp controlled Liq. Rheostat Water Valve
7	Reinsulate Motor Stator

C-A DEPARTMENT MAINTENANCE, REPAIR AND MODIFICATION PROGRAM
JOBS SCHEDULING REQUEST

GROUP: Maintenance – R. Zaharatos (ext. 7205, Pager 4281), J. Benante (ext. 2745, Pager 1207)

<u>JOB#</u>	<u>AREA WHERE WORK IS TO BE DONE</u>	<u>POSSIBLE DISRUPTIONS TO OTHERS</u>	<u>TIME PERIOD</u>	<u>JOB DESCRIPTION, RESPONSIBLE PERSON & GROUP DOING THE WORK</u>	<u>ADD'L. SUPPORT AND COMMENTS</u>	<u>HP SURVEY AND DETAILS</u>
C 1	911/913			Repair Wire Tunnel hatches (concrete)	PE	
RS 2	911 Tunnel			Install water tight covers for outer wire tunnel to Term. Rm.	Carpenters	
RS 3	913 Ring			Lighting upgrade – N. Conj., Emerg. Lights G-H, H10-J1		
C 4	913 Fan Hses. B&D			Seal coat Sumps		
C 5	913 Fan Hses.			Install Sump Water Alarms	FES, CAS	
RS 6	913 Fan Hses.			Install remote Fan Controls. D has outside manual ctrl.	PE/AC	
C 7	913 Ring			Re-grout ceiling at H3 (still leaking over gutter), F13 inside wall, “D” escape.	Contractor	
C 8	913 Util. Rm over Pump Rm			Grout wall to wall joints and wall to floor to prevent water intrusion down rear wall of MCR	Contractor	
C 9	913 Fan Hses.			Exhaust Fans cert. Test – work order EP0001930	PM	
C 10	913 Inner Mongolia			Remove Air Cond. Unit on stand to AC shop for disposal 98-159	PE/AC	
C 11	911 Hi Bay			Install AC unit in P.S. test lab.	Carp./Elec. AC	
RS 12	913 Ring			Fire detection system review (Lessard/Levesque) ILR 406975	FP	
C 13	AGS Complex			Install water dam at south plug door. Storm drains upgrade review (Alan Raphael)	PE	
C 14	AGS Complex		Aug. 26th	Grass cutting/trimming. Brush removal/tree trimming, including 925	Grounds	
C 15	AGS			Update device list	Ray Z.	
C 16	913 E. outside			Remove dirt from side door and replace landscape ties	Grounds	
RS 17	918, 975 roof			Roofing Repairs	PE/Carpenters	
C 18	929 roof			Leak near roof drain, center of room over 480 xformer	PE/Carpenters	
C 19	H10 House			Relamp	FES/Elec.	
C 20	913 S. Shield			Estimate for flood wall with gate	PE	
RS 21	913 Ring			Identify and tag disconnected cables –	Bannon,	

			Quadruplex at HI & I. RF cables at AB, CD, J, L, and LA. Action #622.1.13	Laloudakis
C 22	913 Ring		Repair telephones: B1, I13, K20, N. Conj., and all of F.	Tel. Service
C 23	913 Ring		Repair Circuit Breaker panel CL413B door latch (I9 aisle wall) 00-415	Electricians
RS 24	913 Ring		Install elect. Box covers: F9, 17; B2, 7, 12, 18; A7, 12; K1 00-419	Electricians
RS 25	913 Ring		I14 aisle wall – pad unistrut protruding from wall 00-414	
RS 26	913 Ring		N. Conj. Inner door – replace broken glass 00-413	Carpenters
RS 27	913 Ring		L9 inner wall at ceiling – replace damaged conduit 00-412	
RS 28	913 Ring		C13 near girder – disconnected green gnd. Wire 00-410	
RS 29	913 Ring		Escape ladders – pad and mark head height stair treads 00-409	
RS 30	913 Ring		Re-label Circuit panel legends – BL443B@D8 , XX432@B8 , DLXX433B@A8 , DL419B@L8 ; DL413D@K8 , DL412B@J8 , XX@I8	00-407
RS 31	913 Ring		Tag open-ended cables: E16;E5; C10:L17. Across from L11; L6: H17: inside at L6, F12, H20. 00-406	
RS 32	913 Ring	40 hrs.	Install external pump-out lines to South and C14 sumps	PE/Raphael
RS 33	913 Fan Hses.		Paint or replace Fan Hse. Entry doors as required.	PE/Painters
RS 34	913 Ring		Upgrade utility AC wiring (outlets and lighting)	Electricians
C 35	913 Ring		Crane Inspection	
C 1	Booster Ring		Repair concrete floor ILR 406971, Wayne Hulse 4010	PE
C 2	914		Clean-out storm drain in front of building	Grounds
C 3	914		Remove trees/brush east and south sides of bldg.	Grounds
C 4	914 Roof		Remove leaves and clear drains	Grounds
C 5	942 Ring		Verify tag open ended cable across from D2/D3 half cell	PS Group
C 6	914		Repair steam condensate leak in O.H. door trench	Steam Shop

C-A DEPARTMENT MAINTENANCE, REPAIR AND MODIFICATION PROGRAM
JOBS SCHEDULING REQUEST

GROUP: Power Distribution – T. Nehring (ext. 5275, Pager 4246)

<u>JOB#</u>	<u>AREA WHERE WORK IS TO BE DONE</u>	<u>POSSIBLE DISRUPTIO NS TO OTHERS</u>	<u>TIME PERIOD</u>	<u>JOB DESCRIPTION, RESPONSIBLE PERSON & GROUP DOING THE WORK</u>	<u>ADD’L. SUPPORT AND COMMENTS</u>	<u>HP SURVEY AND DETAILS</u>
--------------------	---	---	-------------------------------	--	---	---

C-A DEPARTMENT MAINTENANCE, REPAIR AND MODIFICATION PROGRAM
JOBS SCHEDULING REQUEST

GROUP: Pulsed Power – R. Zapasek (ext. 2189, Pager 4263), A. Zhang (ext. 5369, Pager 7248)

<u>JOB#</u>	<u>AREA WHERE WORK IS TO BE DONE</u>	<u>POSSIBLE DISRUPTIONS TO OTHERS</u>	<u>TIME PERIOD</u>	<u>JOB DESCRIPTION, RESPONSIBLE PERSON & GROUP DOING THE WORK</u>	<u>ADD'L. SUPPORT AND COMMENTS</u>	<u>HP SURVEY AND DETAILS</u>
C 1	RHIC			SUNCRAFT 150's Repair HKPS Converter Card Rework Install Fans Replace Contactor Repair Bus Joints Ground Current Monitor TQ's (72)		
C 2	RHIC			SUNCRAFT 300's Repair HKPS Converter Card Rework Replace Contactor		
C 3	RHIC			DYNAPOWER POWER SUPPLIES Repair HKPS Modify Firing Card New Firing Board Interlock 600A/2000A Harness (5)		
C 4	RHIC			NEW SEXTUPOLE POWER SUPPLY SYSTEM Remove Magnet from String Prototype New Supply New Supply Production Install in Ring Control Cables install and Term.		
C 5	RHIC			BRUKER SEXTUPOLE POWER SUPPLIES Install Delta To WYE Transformers Install Snubbers in QPA Check voltage taps		
C 6	RHIC			GAMMA T POWER SUPPLIES Repair HKPS Repair current reg. Card Install missing access doors		
C 7	RHIC			SNAKES 3C, 9C Repair HKPS Repair current reg. Card		

C 8 RHIC	<p>Install new resistor in QPA</p> <p>SPIN ROTATORS 5C, 7A, 7C, 9A</p> <p>Pull Cables</p> <p>Prep Racks AC Power</p> <p>Pretest System Chassis</p> <p>Install System Chassis Cables</p> <p>System Test</p> <p>Terminate Magnet Leads</p>
C 9 RHIC	<p>MAIN MAGNET POWER SUPPLY</p> <p>Install Gate Drive Monitoring</p> <p>Gate Drv. Mon Receiver</p> <p>Install Ground Fault Signal to PLC</p> <p>Software upgrade (UPS Signal)</p> <p>Regulator Seperated from control power S</p> <p>720 HZ Chassis Switch</p> <p>New Phase Locked Loop</p> <p>480V Disconnect Switches</p> <p>Cold Box Temp to Control Sys</p> <p>Redundant DCCT and Meter</p> <p>OCC ISO Board Test Points</p> <p>Buffer Board</p>
C 10 RHIC	B8 DHX
C 11 RHIC	<p>INSTALL 6000 AMP SWITCH</p> <p>Add Quench SW. SCR Sigs. To Cont. Sys.</p>
C 12 RHIC	<p>CURRENT REG. CARDS</p> <p>Install Relay Fix</p> <p>Error Fault Fix</p> <p>PS'S Q6, Q7, & QT'S Replace Caps</p> <p>Check S.C.T.C. for Latest Revision</p>
C 13 RHIC	<p>CONTROL CARDS</p> <p>Install New Card With RS Latch, Check Q5</p>
C 14 RHIC	ALCOVES
C 15 RHIC	<p>NODE CARDS</p> <p>Install Chip Fix (Software)</p>
C 16 RHIC	<p>QUENCH DETECTION</p> <p>Build and Install Filter Holders</p> <p>UPS Signal To Network</p>
C 17 RHIC	<p>QPA's</p> <p>Replace IGBT Cards</p> <p>Replace Control Card XMFRS</p>
C 18 RHIC	<p>QPAIC-QPA</p> <p>Install circuit For Lost AC Indication</p> <p>QPAIC Modifications (Resistor SIPS)</p> <p>Timing Resolver Installation</p> <p>System Test</p> <p>Cable Installation</p> <p>QPAIC To Timing Resolver</p> <p>Bypass To Timing Resolver</p> <p>DX Heater to Buffer Chassis</p>
C 19 RHIC	<p>SERVICE BUILDINGS</p> <p>UPS Installation</p> <p>Add Transient Suppressors</p>

Seal Link Boxes
Inspect & Repair MADC Cable Ends
Hi Pres. RDBKS for DHX, DHO, QTRIM, Mains
New Buffer Boards
Cables to Meter
Install AC Power Monitoring
Cables From MADC to Equip RK
TQ GND Monitor/Quench SW SIG Monitor
Modify current Mon Chassis

C RHIC
20

VALVE BOX REWORK

Install Link Box
Install Perm. Fence

C RHIC
21

POWER SUPPLY RACKS

Improve Air Flow
Clean Racks

C RHIC
22

MODIFY 50A CORR. FOR 60 AMP OPS

Install monitor for CQS Temperatures
Remote GND FLT Signals for Alcoves
Install Surge Supressors

C RHIC
23

RING SECURITY HEARTBEAT

Production Assembly
Production Test
Installation

C-A DEPARTMENT MAINTENANCE, REPAIR AND MODIFICATION PROGRAM
JOBS SCHEDULING REQUEST

GROUP: RF Group – N. Laloudakis (ext. 7177, Pager 4261), A. Zaltsman (ext. 2976, Pager 4259)

<u>JOB#</u>	<u>AREA WHERE WORK IS TO BE DONE</u>	<u>POSSIBLE DISRUPTIONS TO OTHERS</u>	<u>TIME PERIOD</u>	<u>JOB DESCRIPTION, RESPONSIBLE PERSON & GROUP DOING THE WORK</u>	<u>ADD’L. SUPPORT AND COMMENTS</u>	<u>HP SURVEY AND DETAILS</u>
--------------------	---	--	-------------------------------	--	---	---

BOOSTER

C	1	Building 942		Replace or clean all air filters (PM)	Yes	Yes
C	2	Building 942		Replace or clean all water filters (PM)	Yes	Yes
C	3	Building 914		Install new Grid Power Supplies	No	Yes
IP	4	Building 914 and 942		Install and terminate cables for new BPM system	Yes	Yes

AGS

RS	1	Building 913		Replace all gap short relays (10 Stations)	No	Yes
RS	2	Building 913		Retube all feedback amps (10 Each)	No	Yes
C	3	Building 913		Replace or clean all air filters (PM)	Yes	Yes
C	4	Building 913		Replace or clean all water filters (PM)	Yes	Yes
C	5	Building 929		ENI drivers New Control Box	No	Yes

RHIC

C	1	Bldg. 1004A and Tunnel	No	Run for about one month after the program is over	No	No
---	---	---------------------------	----	--	----	----

C 2	Bldg. 1004A and Tunnel	No	Water cool all the RF windows	Yes Vacuum and Pump Room	No
C 3	Bldg. 1004A and Tunnel	No	QEI repairs (limiter and motorize phase sifters)	No	No
C 4	Bldg. 1004A and Tunnel	No	Rework all Pistons	No	No
C 5	Bldg. 1004A and Tunnel	No	Install new motors and servo amps for 197 Mhz for blue and yellow	No	No
RS 6	Bldg. 1004A and Tunnel	No	Remove water from Actuators (1 KW load external)	No	No
C 7	Bldg. 1004A and Tunnel	No	Repair of HOM for X3	No	No
C 8	Bldg. 1004A and Tunnel	No	Rework temperature for new windows	No	No
C 9	Bldg. 1004A and Tunnel	No	Rework instrumentation box	No	No
C 10	Bldg. 1004A and Tunnel	No	New PLC for Damper	No	No
C 11	Bldg. 1004A and Tunnel	No	Install new phase shifters for 28 Mhz system	No	No
C 12	Bldg. 1004A and Tunnel	No	PLC for test area	No	No
IP 13	Bldg. 1004A and Tunnel	No	Rebuild spare 28 Mhz PA	No	No
C 14	Bldg. 1004A and Tunnel	No	Regular maintenance (Filters, Etc.,)	No	No

C-A DEPARTMENT MAINTENANCE, REPAIR AND MODIFICATION PROGRAM
JOBS SCHEDULING REQUEST

GROUP: Vacuum – Supervisor: Steve Gill, Ext 4627, Pager 4164 – Addtl. Contact: Mike
Mapes, Ext. 2841, Pager 4277

<u>JOB#</u>	<u>AREA WHERE WORK IS TO BE DONE</u>	<u>POSSIBLE DISRUPTIONS TO OTHERS</u>	<u>TIME PERIOD</u>	<u>JOB DESCRIPTION, RESPONSIBLE PERSON & GROUP DOING THE WORK</u>	<u>ADD'L. SUPPORT AND COMMENTS</u>	<u>HP SURVEY AND DETAILS</u>
LINAC						
IP 1	LINAC		16 hrs. 2 men/8 hrs.	Move HEBT 3 TMP to collimator in HEBT 2	Average 2mR = 32mR	
C 2	LINAC		8 hrs. 2 men/4 hrs.	Inst. new sector valve & bellows @ collimator	Average 2mR = 16mR	
IP 3	LINAC		8 hrs. 2 men/4 hrs.	Inst. New rough valve on HEBT 2 & 3 TMP's	Average 2mR = 16mR	
IP 4	LINAC		16 hrs. 2 men/8 hrs.	Possibly move BLIP 1 TMP to another location	Average 15mR = 240mR	
IP 5	LINAC		48 hrs. 2 men/24 hrs.	Possibly install 8" cross w/laser U/S of BM2	Average 15mR = 720mR	
IP 6	LINAC		10 hrs. 5 turbos, 1 man	Maintenance of BLIP & HEBT TMPs	Average 5mR = 50mR	
C 7	LINAC		16 hrs. 2 men/8 hrs.	Change out 4 HEBT 2 ion pumps	Average 2mR = 32mR	

BOOSTER

RS	1	Booster	48 hrs.	Gauge collector cables...attach connectors & install
C	2	Booster	312 hrs.	Install B6 dump/security valve/WCM (Not including bake-out)
C	3	Booster	32 hrs.	Remove D3 IPM, Dump Kicker, D4 half cell and D6 QC
C	4	Booster		Install D3 Kicker/Thin Septum/IPM
C	5	Booster		Remove D6 Dump/Install D6 Lamberton and QC
C	6	Booster	16 hrs.	D7 Half cell: remove u/s Flange and install new flange
C	7	Booster	80 hrs.	Test of Booster bakeout carts
C	8	Booster	160 hrs.	Wire B3 RF cavities for insitu bake
RS	9	Booster		Repair TSP power supplies and 930UEB bakeout remote PC
C	10	Booster	24 hrs.	Check IGs for voltage leakage, install remote RGA boxes
C	11	Booster		Prebake D3 & D6 septums, D4 HC, D6 QC and B6 dump
C	12	Booster	304 hrs.	Wire B6, D3, D4, D6 for insitu bake
C	13	Booster	616 hrs.	Insitu bake of B & D sectors
C	14	Booster	80 hrs.	Pull new cables for BAF sections
C	15	Booster	160 hrs.	Terminate new IG, TCG, IP, GV, FV cables
C	16	Booster		Upgrade vacuum control at 930 UEB
C	17	Booster		Install BAF Line at Booster side
C	18	Booster		Vent BTA line for foil change and bake
C	19	Booster		Install new solenoid on BXT.VS 9 in BTA line

BAF

C	1	BAF		Inventory and QC new BAF/Booster heating jackets
C	2	BAF		Fabricate BAF bakeout cart
C	3	BAF		Weld and leak check magnet spool pipes in tunnel

C	4	BAF	Install pipe and pump stands / tees, connect, pumpdown...
C	5	BAF	Run all BAF cables from #947 to tunnel
C	6	BAF	Wire for insitu bake
C	7	BAF	Fabricate and test new dry pump TMP carts
C	8	BAF	Terminate and test CCG, TCG, IP, GV, FV cables
C	9	BAF	Install PLC, GC, IPC
C	10	BAF	Wire PLC I/O, make setpoint cables
C	11	BAF	System integration and test

AGS

RS	1	AGS	24 hrs.	Replace F-10 SEPTUM: loto/vent/replace/pumpdown/lc	
C	2	AGS	48 hrs.	Install new C-15 Polarimeter and 2 new sector valves	
RS	3	AGS	576 hrs.	Replace all 12 Sextupole magnets at the #13: loto and vent entire AGS ring / remove and install all #13 sector valves	4 seals per sextupole... 48 required
RS	4	AGS	8 hrs. to check	Check all cold cathode and tc gauges and replace as required	Add 4 hrs. each for replacement
RS	5	AGS	72 hrs.	Perform maintenance on all tmp's (oil/grease/test)	
C	6	AGS	48 hrs.	Install new A-10 TUNE METERS (???)	
C	7	AGS	8 hrs.	Install covers on exposed Jones Strips in A-10/E-18/H-10 houses (power must be off to do this)	
Ongoing	8	AGS		Repair IPPS as needed	
RS	9	AGS	48 hrs.	Bleed up C5 and E15 IPMs for repair of servo valves	
RS	10	AGS	48 hrs.	Remove H-20 SEPTUM from girder for inspection	
RS	11	AGS	16 hrs.	Replace "SEC" unit (CD010) in SPLITTER line	
C	12	AGS	16 or 72	Clear short @ D-10 RF Cavity d/s flange (If off girder = 72 hours)	
C	13	AGS	64 hrs.	Replace J-6 main magnet chamber (+ power room personnel)	
C	14	AGS	16 hrs.	Replace E-14, E-15, E-16 ion pumps	
C		AGS		Re-install C-20 polarimeter	

15

C AGS Vent A-20 Flying wire for inspection

16

C AGS Repair air lines in ring

17

AtR

C	1	AtR	160 hrs.	Inst. New air line filters for sector valves... U, W, X, Y Lines	
C	2	AtR	160 hrs.	Replace all valve solenoids and test	
C	3	AtR	16 hrs.	Check CCG serial no for possible replacement	Add 4 hrs. per replacement
C	4	AtR	40 hrs.	Leak check sections with high pressure	
RS	5	AtR		Vent 1 st section of "U" line for UF1 repair	

RHIC

	1	RHIC		Support construction of 1006B liquifier	
C	2	RHIC		Bleed-up and remove experimental beampipe at STAR	
C	3	RHIC		Repair bakeout insulation on STAR beampipe	
C	4	RHIC		Bleed-up and remove experimental beampipe PHENIX	
C	5	RHIC		Bakeout Sector #BI1	
C	6	RHIC		Bakeout Sector #YI2	
C	7	RHIC		Bakeout Sector #BI5	After spin rotator
C	8	RHIC		Bakeout Sector #YI6	After spin rotator
C	9	RHIC		Bakeout Sector #BO7	After spin rotator
C	10	RHIC		Bakeout Sector #YO8	After spin rotator
C	11	RHIC		Bakeout Sector #BI9	After spin rotator
C	12	RHIC		Bakeout Sector #YI10	After spin rotator
C	13	RHIC		Bakeout IP 12	
C	14	RHIC		Bakeout Sector 11 DX-D0	
C	15	RHIC		Bakeout Sector 12 DX-D0	

C	16	RHIC	Reinstall STAR Beamline and Bakeout	
C	17	RHIC	Reinstall PHENIX Beamline and Bakeout	
C	18	RHIC	Turbopump Maintenance All areas	
C	19	RHIC	Remove and replace fundamental mode dampers on SWC's	
C	20	RHIC	Bleed up #7, #8 DX-D0 for installing muon shields (remove vacuum components)	
C	21	RHIC	Bakeout Sector 7 DX-D0	
C	22	RHIC	Bakeout Sector 8 DX-D0	
C	23	RHIC	Bleed up Sector #B011, #YI11 for the repair of BO10 Q16	
C	24	RHIC	Re-install #BO11, #YI11, pump down and possibly bakeout	
C	25	RHIC	Provide support for RF cavity testing	
C	26	RHIC	Provide support for spin rotator installation	
C	27	RHIC	Provide support for valve box repair at #6	
C	28	RHIC	Install 4 more Roman Pots at #YO1 and #BO2	
C	29	RHIC	Bake Sector #BO3	
C	30	RHIC	Bake Sector #YI3	
C	31	RHIC	Sample He background in cold bore	During warm up
C	32	RHIC	Sample He background in valve boxes	Before warm up
C	33	RHIC	Insulating vacuum He background assessment	Before warm up
C	34	RHIC	VJR He background assessment	
C	35	RHIC	IP2 leak check	
C	36	RHIC	Repair and replace bad CCG's and PPA's	
C	37	RHIC	Complete TSP TCG interlock wiring	
C	38	RHIC	Bleed up and pumpdown #YO1 and #BO2 for diagnostic modification	

C-A DEPARTMENT MAINTENANCE, REPAIR AND MODIFICATION PROGRAM
JOBS SCHEDULING REQUEST

GROUP: Water System – Supervisor: John deBoer, Ext 4668, Pager 4250 – Addtl. Contact:
Larry Vogt, Ext. 4797, Pager 4273, R. Grandinetti, Ext. 7186, Pager 4139

<u>JOB#</u>	<u>AREA WHERE WORK IS TO BE DONE</u>	<u>POSSIBLE DISRUPTIONS TO OTHERS</u>	<u>TIME PERIOD</u>	<u>JOB DESCRIPTION, RESPONSIBLE PERSON & GROUP DOING THE WORK</u>	<u>ADD'L. SUPPORT AND COMMENTS</u>	<u>HP SURVEY AND DETAILS</u>
BLDG. 913 AGS RING						
RS 1	AGS Ring	Cooling System Down	6/2 to 9/2 Summer Mnt 160 mhers.	Installation of 12 new sextapoles, draining and filling of magnets, removal of old hoses and fitting, installation of new manifold, fittings and hoses.	None	HP
RS 2	AGS Ring	Cooling System Down	6/2 to 9/2 Summer Mnt 60 mhers.	Installation of new F-10, draining and filling of magnet, removal of old hoses and fittings, Buss modifications and Installation of new hoses and	None	HP

			mhers.	fittings.		
C	3	AGS Ring	Cooling System Down	6/2 to 9/2 Summer Mnt 36 mhers.	Replace worn hoses and leaking fittings	None HP
C	4	AGS Ring	Cooling System Down	6/2 to 9/2 Summer Mnt 8 mhers.	Replace bag filters in 5 cartridges	None HP
RS 5		AGS Ring	Cooling System Down	6/2 to 9/2 Summer Mnt. 24 mhers.	Replace air filters on airlines	None HP
RS 6		AGS Ring	Cooling System Down	6/2 to 9/2 Summer Mnt 24 mhers.	Clean all strainers on tune quad magnets (13).	None HP
C	7	AGS Ring	Cooling System Down	6/2 to 9/2 Summer Mnt 8 mhers.	Rebuild F-5 Jordan PVC Valve	None HP
C	8	AGS Ring	Cooling System Down	6/2 to 9/2 Summer Mnt 8 mhers.	Rebuild J-10 Dump PVC Valve	None HP

AGS BLDG. 928/929 RFMG

C	1	RFMG Tower	Cooling System Down	6/2 to 9/2 40 Mhrs.	Perform Maintenance on cooling tower and change gearbox oil.	None N/A
C	2	RFMG Pump Room	Cooling System Down	480 Mhrs.	Cleaning of the following HTXR'S, RF Cavity, RF PWR, Rectifier, Choke, and RFMG Siemens Oil Cooler	None N/A
RS 3		RFMG Pump Room	Cooling System Down	6/2 to 9/2 40 Mhrs.	Calibration and cleaning of pneumatic controls	None N/A
C	4	RFMG Pump Room	Cooling System Down	6/2 to 9/2 16 Mhrs.	Installation of new Liquid Rheostat covers	PWR Room N/A
RS 5		RFMG Pump Room	Cooling System Down	6/2 to 9/2 80 Mhrs.	Removal and Installation of new RFMG tower valves 6 Large new valves	P.E. Plumbers N/A
C	6	RFMG Tower	Cooling System Down	6/2 to 9/2 120 Mhrs.	Installation of RFMG tower temp control valve and control hookup	Riggers, Electricians

H-10 HOUSE

C	1	Pump Room	Cooling Systems Down	6/2 to 9/2 2 Mhrs	Change out bag filter	None N/A
C	2	Pump Room	Cooling Systems Down	6/2 to 9/2 2 Mhrs.	Back flush HTXR	None N/A

NOTE: WATCH STANDING WILL APPROXIMATELY SPEND 4 HOURS A DAY TO CHECK ON OPERATING EQUIPMENT AND PROVIDE SERVICES FOR THE GROUP.

C	1	AGS Multipole System	Cooling System Down	6/2 to 9/2 Summer Mnt. 24	Change out bag filter, repack temp Control valve, Maintenance on pumps (2)	None N/A
----------	---	-------------------------	------------------------	---------------------------------	---	----------

			Mhrs.			
RS 2	AGS Pump Room Controls	Cooling Systems Down	6/2 to 9/2 Summer Mnt 16 Mhrs.	Maintenance of pneumatic Controls (Calibration and cleaning)	None	N/A
C 3	AGS Main Magnet	Cooling System Down	6/2 to 9/2 Summer Mnt 68 Mhrs.	Install air bleeders on DI cartridges, change out bag filters, maintenance on E-vap coolers – No. 5 clean nozzles, No. 7 frozen pump, No. 8 squirrel cage vibration Mnt on pumps (3), back flush Htxr. Install new PLC load and test	None	N/A
C 4	AGS Domestic Water	Cooling System Down	6/2 to 9/2 Summer Mnt. 4 Mhrs.	Schedule and perform RPZ test by P.E. 911A pump room and 915 10" RPZ.	P.E. Plumbers	N/A
RS 5	AGS Chillers	Chillers Down	6/2 to 9/2 Summer Mnt 120 mhrs.	Draining of cooling system, installation of PLC Controls, wiring, Transmitters, and testing.	P.E. A/C	N/A

BLDG 911A WESTINGHOUSE

C 1	AGS Westinghouse Cooling System	Cooling System Down	6/2 to 9/2 Summer Mnt. 20 Mhrs.	Final hook up of new Htxr, removal of old Htxr. Draining and filling of water and hydraulic fluid.	P.E. Plumbers	N/A
C 2	AGS Westinghouse Cooling System	Cooling System Down	6/2 to 9/2 Summer Mnt. 16 Mhrs.	Installation of new liquid rheostat temp control and probe.	None	N/A
RS 3	AGS Westinghouse Cooling System	Cooling System Down	6/2 to 9/2 Summer Mnt. 24 Mhrs.	Maintenance on Cooling Pumps (2)	None	N/A

BLDG. 951 AGS RFPA

C 1	AGS RFPA Cooling System	Cooling System Down	6/2 to 9/2 Summer Mnt	Draining and filling, installation of mod, new Htxr, pumps, controls, and test of system.	P.E. Plumbers	HP
C 2	AGS RFPA Cooling System	Cooling System Down	6/2 to 9/2 Summer Mnt. 16 Mhrs.	Install air bleeders to Di cartridges and redo Di and make – up Piping hook-up	None	N/A
C 3	AGS RFPA Cooling System	Cooling System Down	6/2 to 9/2 Summer Mnt. 8 Mhrs.	Maintenance, repair and cleaning of E-vap cooler	None	N/A
C 4	AGS RFPA Cooling System	Cooling System Down	6/2 to 9/2 Summer Mnt. 6 Mhrs.	Schedule and perform RPZ test by P.E.	None	N/A
RS 5	AGS RFPA Cooling System	Cooling System Down	6/2 to 9/2 Summer Mnt. 16 Mhrs.	Maintenance on pumps (2)	None	N/A
C 6	AGS RFPA Cooling System	Cooling System Down	6/2 to 9/2 Summer Mnt. 4 Mhrs.	Replace Filters inline bag filter	None	N/A

BLDG 951 FAST PULSE QUAD

RS 1	AGS Fast Pulse Quad Cooling System	Cooling System Down	6/2 to 9/2 Summer Mnt. 40 Mhrs.	Disassemble, reassemble and clean FPQ Htxr	None	N/A
C 2	AGS Fast Pulse Quad Cooling System	Cooling System Down	6/2 to 9/2 Summer Mnt. 4 Mhrs.	Change out bag filter	None	N/A
RS 3	AGS Fast Pulse Quad Cooling System	Cooling System Down	6/2 to 9/2 Summer Mnt. 8 Mhrs.	Pump Maintenance	None	N/A
C 4	AGS Fast Pulse Quad Cooling System	Cooling System Down	6/2 to 9/2 Summer Mnt. 8 Mhrs.	Temp Controller Maintenance	None	N/A

F-10 HOUSE BLDG 932

C 1	F-10 Tower	Cooling System Down	6/2 to 9/2 16 Mhrs.	Perform maintenance, repair and cleaning to F-10 Tower	None	N/A
C 2	F-10 Pump Room	Cooling System Down	6/2 to 9/2 16 Mhrs.	Replace bag filters and perform MNT on all pumps	None	HP

BOOSTER - BLDG 914 and 942

C 1	Booster Ring	Cooling System Down	6/2 to 9/2 Summer Mnt.	Drain and fill MM system for D-6 Septum, remove/install cooling lines for D-3, D-4. Drill holes and weld on return piping.	P.E. Welders	HP
C 2	Booster Pump Room	Cooling System Down	6/2 to 9/2 Summer Mnt. See Hock's Schedule	Installation of high pressure cooling system, controls and testing for D-6 in BSTR Pump Room, includes Mod to MM DI System	P.E. Welders	HP
C 3	Booster Ring	Cooling System Down	6/2 to 9/2 Summer Mnt.	Removal relocation and installation of the B-6 Beam dump	P.E. Plumbers	HP
C 4	Booster Pump Room	Cooling System Down	6/2 to 9/2 Summer Mnt. 8 Mhrs.	Change bag filters on MM bag filter	None	HP
C 5	Booster Ring	Cooling System Down	6/2 to 9/2 Summer Mnt. 16 Mhrs.	Clean all RF Strainers on RF PA'S	RF Group	HP
C 6	Booster Ring	Cooling System Down	6/2 to 9/2 Summer Mnt. 8 Mhrs.	Change out ring air filters	None	HP
C 7	Booster Pump Room	Cooling System Down	6/2 to 9/2 Summer Mnt. 32 Mhrs.	Perform MNT on all pumps	None	HP
RS 8	Booster Ring	Cooling System Down	6/2 to 9/2 Summer Mnt. 4 Mhrs.	Remove DH-5 Measure flows and sureflow switches	None	HP

BLDG 911, 912, and 912A - Experimental Towers 1,2,3,4, C-Line and SEM

C	1	EXP Towers	Cooling Systems Down	6/2 to 9/2 Summer Mnt 40 Mhrs.	Drain and clean all towers and strainers	None	N/A
IP	2	EXP Towers	Cooling Systems Down	6/2 to 9/2 Summer Mnt. 40 Mhrs.	Perform maintenance on pumps and controls	None	HP Coverage on C-Line and SEM System
C	3	Tower No. 1	Cooling Systems Down	6/2 to 9/2 Summer Mnt. 16 Mhrs.	Replace Make up Tank	None	N/A
IP	4	Towers 1, 2 & 4	Cooling Systems Down	6/2 to 9/2 Summer Mnt. 48 Mhrs.	Replace Tower Gear Box oil	None	N/A
C	5	EXP Towers	Cooling Systems Down	6/2 to 9/2 Summer Mnt.	P.E. Plumbers test all RPZ (back flow prevent)	None	N/A

BLDG 919A Tower 5

C	1	Tower No. 5	Cooling Systems Down	6/2 to 9/2	Drain and clean cooling tower and strainers	None	N/A
RS 2		Tower No. 5	Cooling Systems Down	6/2 to 9/2	Change out tower gear box oil	None	N/A
RS 3		Tower No. 5	Cooling Systems Down	6/2 to 9/2	Pump MNT	None	N/A

AGS BEAM STOP BLDG 946

RS 1		Beam Stop	Cooling System Down	6/2 to 9/2 24 Mhrs.	Reconfigure piping for the beam stop deionizer. Install bleeder valves	None	HP
RS 2		Beam Stop	Cooling System Down	6/2 to 9/2 48 Mhrs.	Install Instrumentation taps	None	HP

BLDG 930 LINAC

C	1	LINAC Tower	Cooling System Down	6/2 to 9/2 16 Mhrs.	Perform tower maintenance, cleaning and repairs	None	N/A
C	2	LINAC 930A	Cooling System Down	6/2 to 9/2 16 Mhrs.	BAF mod to the Booster Power Supply Area, draining and filling of LINAC RF and transport water. Disconnecting and reconnecting of Power Supplies, Testing of System.	Contractors	HP
C	3	LINAC UEB Area	Cooling System Down	6/2 to 9/2 16 Mhrs.	Installation of cooling lines for new Power Supplies and some piping modifications. Testing of cooling lines	Contractors and P.E. Plumbers	HP
IP	4	LINAC Cavity	Cooling System Down	6/2 to 9/2 60 Mhrs.	Upgrade on cavity station, new bag filter and controllers including some piping modifications	P.E. Plumbers	N/A
RS 5		LINAC Pump Room	Cooling System Down	6/2 to 9/2 60 Mhrs.	LINAC RF and Transport Htxr cleaning	None	N/A

5	Room					
RS 6	LINAC 930A	Cooling System Down	6/2 to 9/2 80 Mhrs.	Replace old/worn hoses on the rectifiers Power supplies	Power Rm Group	N/A
RS 7	LINAC HEBET Line	Cooling System Down	6/2 to 9/2 24 Mhrs.	Remove discontinued sure flows and measure flows on DH2 thru 4. Install common flow switches.	Power Rm Group	N/A
RS 8	LINAC Control Room	Cooling System Down	6/2 to 9/2 25 Mhrs.	Calibrate, repair and clean pneumatic controls	None	N/A
RS 9	LINAC	Cooling System Down	6/2 to 9/2 80 Mhrs.	Drain, replace and repair LINAC domestic water lines.	P.E. Plumbers	N/A
RS 10	LINAC Pump Room	Cooling System Down	6/2 to 9/2 16 Mhrs.	Perform maintenance on all pumps	None	N/A
C 11	LINAC tower		32 Mhrs.	Modify tower fan controls	Electricians	N/A
RS 1	Recharge Basin		6/2 to 9/2 16 Mhrs.	AGS Recharge Basin Outfall 003 (HO)		
C				BAF Installation Please see separate schedule for effort		
C				Helium Recovery cooling system Bldg. 1005E Schedule and Mhrs. To be determined		